

Team name: Luna R

Team member: Xinghai Nian, Bingzhen Chen, Xiaoqian Yang

Project title: Flashcards to learn a foreign language

Instructions for expert users to do testing:

1. **Hardware/software requirements:** Should work on all computers as long as successfully install requirements.
2. **First setup out product as following:**
 - git clone <https://github.com/StacyYang/Flashcards-to-learn-a-foreign-language>
 - pip install -r docs/expert_users/requirements.txt
 - python dev/main.py
 - Go to <http://127.0.0.1:5000>
3. **Can register a new account, or use our tester user/administer user**
 - **Test user:**

username: tester

password: 1234567

- **Administer account:**

username: administer

password: 1234567

Automation/complexity of instructions:

- **The time and effort to set up the test plan for execution.**

Coming up the testing plan: two weeks
Execute the testing plan: maybe one hour
- **The effective usage of the testing tools.**

Most of the part can be checked by clicking around the website.

For stability and ability to handle a large number of requests, we will use JMeter to test it.

Amount of the time to finish the tests.

- Expected execution time to complete the test: 0.5 to 1 hour

Coverage of the tests:

- **Testing plans for each feature**
 - User Authentication and Account Management
 - Learn by using Flashcards
 - Notes Creation
 - Take quiz
 - Scoreboard

All the above features will test as listed below:

- Functionality testing:
 - Check that all the links on the website are working properly.
 - Verify that users can log in, sign up, and log out successfully.
 - Ensure users are redirected to the correct pages after logging in or signing up.
 - Check that users are able to choose a language mode and access the quiz.
- User interface testing:
 - Verify that the website is visually appealing and easy to navigate.
 - Check that all buttons and forms are properly labeled and functioning correctly.
 - Ensure that the website is responsive and looks good on different sizes of screens.
- Security testing:
 - Check that user passwords are being stored securely (using a secure hashing algorithm).
- Database testing:
 - Verify that user information is being stored correctly in the database.
 - Check that the database schema is designed properly and optimized for performance.
- Performance testing:
 - Test the website's load times to ensure it loads quickly and efficiently.
 - Use JMeter to check that the website is able to handle a large number of users simultaneously without crashing or slowing down.